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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/786,717	02/24/2004	Dean R. Garraffa	ATOMIC-15	2760
1054	7590	03/20/2006	EXAMINER	
LEONARD TACHNER, A PROFESSIONAL LAW CORPORATION 17961 SKY PARK CIRCLE, SUITE 38-E IRVINE, CA 92614			HEWITT, JAMES M	
			ART UNIT	PAPER NUMBER
			3679	

DATE MAILED: 03/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/786,717	<b>Applicant(s)</b> GARRAFFA, DEAN R.	
	<b>Examiner</b> James M. Hewitt	<b>Art Unit</b> 3679	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 24 February 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Drawings***

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 38. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

Applicant is reminded of the proper format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The abstract should describe the

disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The use of the trademark Teflon has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

### ***Claim Objections***

Claims 1-6 and 8-12 are objected to because of the following informalities:

In claim 1, line 6, it is unclear as to what the phrase "in sealing engagement" refers. What is in sealing engagement with what?

In claim 1, line 6, it is unclear as to what "therebetween" refers. An annular gap between what?

In claim 2, line 2, it is unclear as to what the phrase "adjacent said O-ring" modifies.

In claim 3, line 2, it is unclear as to which curved surface "said curved surface" refers; each curved surface?

In claim 4, line 1, "he" should be "The".

In claim 8, line 2, "the ball" lacks proper antecedent basis.

In claim 8, line 3, it is unclear as to what the phrase "in sealing engagement" refers. What is in sealing engagement with what?

In claim 8, line 3, it is unclear as to what "therebetween" refers. An annular gap between what?

In claim 9, line 2, it is unclear as to what the phrase "adjacent said O-ring" modifies.

In claim 10, line 2, "said ball" lacks proper antecedent basis.

In claim 10, line 2, it is unclear as to which curved surface "said curved surface" refers; each curved surface?

In claim 10, line 3, "said ball" lacks proper antecedent basis.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4-5 and 11-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "low friction" in claims 4 and 11 is a relative term which renders the claim indefinite. The term "low friction" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claims 5 and 12 contain the trademark/trade name Teflon. Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe the low friction material and, accordingly, the identification/description is indefinite.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 and 6-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Shreeve (US 1,917,070).

With respect to claim 1, Shreve discloses a ball and socket swivel connector comprising: a ball (3) and socket (1), the ball having a hollow stem (4), the socket having a threaded connector; a pair of spaced apart bushings (9, 9a) surrounding the

ball within the socket in sealing engagement and forming an annular gap therebetween; and an O-ring (13) surrounding the ball within said gap.

With respect to claim 2, further comprising a lubricant (lubricating medium) filling said gap adjacent said O-ring.

With respect to claim 3, wherein each of said bushings has a curved surface contacting said ball, the radius of said curved surface being substantially equal to the radius of said ball. Refer to Fig. 1.

With respect to claim 6, further comprising a boot (6/7/8/10) having a wiper portion (e.g. 6) extending over said socket.

With respect to claim 7, Shreve discloses a ball and socket swivel connector comprising: a hollow stem (4), the socket (1) having a threaded connection; and a boot (6/7/8/10), said boot having a wiper portion (e.g. 6) extending over said socket.

With respect to claim 8, further comprising: a pair of spaced apart bushings (9, 9a) surrounding the ball within the socket in sealing engagement and forming an annular gap therebetween; and an O-ring (13) surrounding the ball within said gap.

With respect to claim 9, further comprising a lubricant (lubricating medium) filling said gap adjacent said O-ring.

With respect to claim 10, wherein each of said bushings has a curved surface contacting said ball, the radius of said curved surface being substantially equal to the radius of said ball. Refer to Fig. 1.

Claims 1, 3, 6-8 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Reifenberger et al (US 5,507,534).

With respect to claim 1, Reifenberger et al discloses a ball and socket swivel connector comprising: a ball (16A) and socket (14A), the ball having a hollow stem (as at 12A), the socket having a threaded connector; a pair of spaced apart bushings (22A and that bushing adjacent O-ring 46) surrounding the ball within the socket in sealing engagement and forming an annular gap therebetween; and an O-ring (46) surrounding the ball within said gap.

With respect to claim 3, wherein each of said bushings has a curved surface contacting said ball, the radius of said curved surface being substantially equal to the radius of said ball. Refer to Fig. 3.

With respect to claim 6, further comprising a boot (compression nut) having a wiper portion extending over said socket.

With respect to claim 7, Reifenberger et al discloses a ball and socket swivel connector comprising: a hollow stem (as at 12A), the socket (14A) having a threaded connection; and a boot (compression nut), said boot having a wiper portion extending over said socket.

With respect to claim 8, further comprising: a pair of spaced apart bushings (22A and that bushing adjacent O-ring 46) surrounding the ball within the socket in sealing engagement and forming an annular gap therebetween; and an O-ring (46) surrounding the ball within said gap.



With respect to claim 10, wherein each of said bushings has a curved surface contacting said ball, the radius of said curved surface being substantially equal to the radius of said ball. Refer to Fig. 3.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-5 and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shreeve (US 1,917,070).

Shreeve fails to teach that his bushings are made from Teflon. It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ Teflon bushings in Shreeve, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice.

Claims 4-5 and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reifenberger et al (US 5,507,534).

Reifenberger et al fails to teach that his bushings are made from Teflon. It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ Teflon bushings in Reifenberger et al, since it has been held to be

within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice.

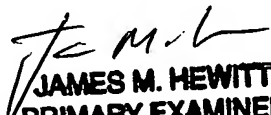
### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James M. Hewitt whose telephone number is 571-272-7084.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Stodola can be reached on 571-272-7087. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
**JAMES M. HEWITT**  
**PRIMARY EXAMINER**